



Approval #

980015-U
(Replaces 920107-U)

Safety & Buildings Division
201 West Washington Avenue
P.O. Box 2689
Madison, WI 53701

Wisconsin Material Approval

Material

Red Thread II and IIA Non-Metallic Underground Piping
and Fittings for Flammable Liquids

Manufacturer

Smith Fiberglass Products, Inc.
2700 West 65th Street
Little Rock, Arkansas 72209

SCOPE OF APPROVAL

Red Thread II and IIA non-metallic underground piping and fittings for flammable liquids have been evaluated in conformance with s. **ILHR 10.125, 10.51(2) and 10.51(4)** of the Wisconsin Administrative Flammable and Combustible Liquids Code.

DESCRIPTION AND USE

Red Thread IIA pipe and Red Thread II fittings are UL listed for use in conveying petroleum products, alcohols and alcohol-gasoline mixtures underground.

Red Thread IIA product and containment piping is available in the following sizes:

Product Piping (UL)

2-inch, 250 psig @ 150°F
3-inch, 175 psig @ 150°F
4-inch, 125 psig @ 150°F

Containment Piping (UL)

3-inch, 90 psig @ 150°F
4-inch, 80 psig @ 150°F

Red Thread IIA primary product pipe is factory supplied with a matching tapered threaded coupling and spigot or a matching tapered integral bell and spigot. Field made tapers can be readily applied to the pipe using a tool specifically made for that purpose. If secondary containment pipe is specified, the ends of the Red Thread IIA secondary containment pipe must be plain and thoroughly scarfed for joining to the two-piece containment fittings. The appropriate adhesive as specified by the manufacturer must be used when bonding all primary and secondary pipe and fitting joints. Note: when joining secondary containment pipe-to-fittings and fittings-to-fittings, fiberglass filler must be added to the adhesive to ensure optimum performance of this type of bonded joint.

The table below further describes the listed systems of primary containment, secondary containment, fittings and adhesives that must be used together.

SYSTEM	DIAMETER (IN.)	PRIMARY CONTAINMENT	SECONDARY CONTAINMENT	FOR DISTRIBUTION OF
1	2	Yes	No	Petroleum products only
1	3, 4	Yes	Yes	Petroleum products only
2	2	Yes	No	Petroleum products only
2	3, 4	Yes	Yes	Petroleum products only
3	2	Yes	No	Petroleum products, alcohols and alcohol/gasoline mixtures
3	3, 4	Yes	Yes	Petroleum products, alcohols and alcohol/gasoline mixtures

System 1 - Consists of Red Thread II pipe, Red Thread II primary and/or secondary containment fittings and DS7000 Series adhesives (DS7014, DS7024, DS7055 and DS7069).

System 2 - Consists of Red Thread IIA pipe, Red Thread IIA primary and/or secondary containment fittings, and DS7000 Series adhesives.

System 3 - Consists of Red Thread IIA pipe, Red Thread II primary and/or secondary containment fittings, and DS8000 Series heat cured adhesives (DS8014, DS8024, DS8055 and DS8069). Secondary containment piping and fittings may also be joined using DS7000 Series adhesives.

Consult Smith Figerglass Products' installation manuals B2160 and B2165 for recommended installation and testing procedures.

TESTS AND RESULTS

The piping systems described in this approval have been tested and listed by Underwriters Laboratories for compliance with UL subject 971.

LIMITATIONS OF APPROVAL

Red Thread II and IIA pipe and fittings are approved for use as part of an underground storage tank system in compliance with the design and corrosion protection standards of **s. ILHR 10.51 (2)(a)1.**

The piping and fittings shall be installed underground (buried) in accordance with the listing and the manufacturer's recommended installation practices. Prior to use, the primary and secondary piping systems shall be pressure tested in accordance with the manufacturer's recommendations to assure soundness of all joints and connections. This testing does not take the place of testing required by **s. ILHR 10.51 (4).**

This approval will be valid through December 31, 2003, unless manufacturing modifications are made to the product or a re-examination is deemed necessary by the department. The Wisconsin Material Approval Number must be provided when plans that include this product are submitted for review.

DISCLAIMER

The department is in no way endorsing or advertising this product. This approval addresses only the specified applications for the product and does not waive any code requirement not specified in this document.

Reviewed by: _____

Approval Date: _____

By: _____

Richard Meyer, Architect
Chief, Code Development Section
Program Development Bureau